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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/01/2004

Chris Irgens

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CALFEE HALTER & GRISWOLD, LLP  
800 SUPERIOR AVENUE  
SUITE 1400  
CLEVELAND, OH 44114

EXAMINER

GALL, LLOYD A

ART UNIT

PAPER NUMBER

3676

MAIL DATE

DELIVERY MODE

05/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/710,316	IRGENS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lloyd A. Gall	3676	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8, 17 and 19-33 is/are pending in the application.
- 4a) Of the above claim(s) 25-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 17, 19-24 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 17 and 33 are objected to because of the following informalities: In claim 17, line 6, "a second" should read --the second--. In claim 33, line 1, "assembly" should be deleted, for consistency. Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al (031) in view of Li (915).

It is first noted that a receiver and an object are not being positively claimed. As seen in figs. 12-17, Wilson et al teaches a receiver lock including a linear shaft 123, 121, a first end of the shaft 123 received within a locking head 122, a second end of the shaft including a stop member 121 or 26 or 124 having an increased diameter with respect to the first end of the shaft 123 as seen in fig. 12, a key insertion end opposite the shaft insertion end of the lock head 122, a locking mechanism 130 to engage the shaft within the lock head 122, a compressible (column 6, line 19) protective covering 134 on the shaft insertion end of the lock head and including a hole to receive the first end of the shaft, wherein the protective covering 134 has the same diameter as the cylindrical outer peripheral surface of the lock head. With respect to the last line of claim 1, the protective covering 134 of Wilson provides at least some degree of a sealed barrier. Wilson does not teach the covering 134 being mounted so as to partially enclose an

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axial length of the lock head. As seen in fig. 5, Li teaches a covering member 231 as being mounted to partially enclose an axial length (222) of the lock head 22. It would have been obvious to mount the covering 134 of Wilson to enclose an axial length of the lock head, in view of the teaching of Li, the motivation being to optimize the strength of its connection to the lock head.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li as applied to claim 1 above, and further in view of Signorelli et al (279). In column 10, lines 53-54, Signorelli teaches a washer 49 formed of an elastomeric material. It would have been obvious to modify the compressible covering of Wilson such that it is formed of elastomeric material, in view of the teaching of Signorelli, the motivation being to optimize its sealing capabilities.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li as applied to claim 1 above, and further in view of Bailey (771) or Gilbertson et al (601).

Bailey teaches a bent handlebar 28 in fig. 1. Gilbertson teaches a shaft with a bent end 112 in fig. 8. It would have been obvious to utilize a bent handlebar with the handlebar 24 of Wilson et al, which functions as the stop member in fig. 12 of Wilson, in view of the teaching of Bailey, the motivation being to simplify steering of the bicycle.

Alternatively, it would have been obvious to substitute a bent end shaft for the shaft end stop member 121 of fig. 13 of Wilson, in view of the teaching of Gilbertson et al, the motivation being to utilize the lock of Wilson as a trailer lock, as taught by Gilbertson et al.

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Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li as applied to claim 1 above, and further in view of Li (000).

As seen in fig. 6, Li (000) teaches a protective cap 252 at the key insertion end of the lock head 21 attachable by an external groove in the lock head. It would have been obvious to mount a protective cap over the key insertion end of the lock head of Wilson et al, in view of the teaching of Li (000), the motivation being to seal the key slot of the lock head against dust or water, as is well known in the lock art.

Claims 1, 3, 5, 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li as applied to claim 1 above, and further in view of Wyers (832).

It is first noted that a receiver and an object are not being positively claimed. As seen in figs. 12-17, Wilson et al teaches a receiver lock including a linear shaft 123, 121, a first end of the shaft 123 received within a locking head 122, a second end of the shaft including a stop member 121 or 26 or 124 having an increased diameter with respect to the first end of the shaft 123 as seen in fig. 12, a key insertion end opposite the shaft insertion end of the lock head 122, a locking mechanism 130 to engage the shaft within the lock head 122, a compressible (column 6, line 19) protective covering 134 on the shaft insertion end of the lock head and including a hole to receive the first end of the shaft, wherein the protective covering 134 has the same diameter as the cylindrical outer peripheral surface of the lock head. With respect to the last line of claim 1, the protective covering 134 of Wilson provides at least some degree of a sealed barrier. Wilson does not teach the covering 134 being mounted so as to partially enclose an

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axial length of the lock head. As seen in fig. 5, Li teaches a covering member 231 as being mounted to partially enclose an axial length (222) of the lock head 22. Wyers teaches a seal 66 at the shaft insertion end of the lockhead. It would have been obvious to mount the covering 134 of Wilson to enclose an axial length of the lock head, in view of the teaching of Li, the motivation being to optimize the strength of its connection to the lock head. It would have been obvious to modify the covering 134 of Wilson et al such that it functions as a seal, in view of the teaching of Wyers, the motivation being to protect the interior components of the lock head against dust and water, as is well known in the lock art.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Wyers as applied to claim 1 above, and further in view of Signorelli et al.

In column 10, lines 53-54, Signorelli teaches a washer 49 formed of an elastomeric material. It would have been obvious to modify the compressible covering of Wilson as modified by Wyers such that it is formed of elastomeric material, in view of the teaching of Signorelli, the motivation being to optimize its sealing capabilities.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Wyers as applied to claim 1 above, and further in view of Bailey (771) or Gilbertson et al (601).

Bailey teaches a bent handlebar 28 in fig. 1. Gilbertson teaches a shaft with a bent end 112 in fig. 8. It would have been obvious to utilize a bent handlebar with the handlebar 24 of Wilson et al, which functions as the stop member in fig. 12 of Wilson, in view of



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the teaching of Bailey, the motivation being to simplify steering of the bicycle.

Alternatively, it would have been obvious to substitute a bent end shaft for the shaft end stop member 121 of fig. 13 of Wilson, in view of the teaching of Gilbertson et al, the motivation being to utilize the lock of Wilson as a trailer lock, as taught by Gilbertson et al.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Wyers as applied to claim 1 above, and further in view of Li (000). As seen in fig. 6, Li (000) teaches a protective cap 252 at the key insertion end of the lock head 21 attachable by an external groove in the lock head. It would have been obvious to mount a protective cap over the key insertion end of the lock head of Wilson et al, in view of the teaching of Li (000), the motivation being to seal the key slot of the lock head against dust or water, as is well known in the lock art.

Claims 17, 20-22, 24 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Signorelli et al.

It is first noted that a receiver and an object are not being positively claimed. As seen in figs. 12-17, Wilson et al teaches a receiver lock including a linear shaft 123, 121, a first end of the shaft 123 received within a locking head 122, a second end of the shaft including a stop member 121 or 26 or 124 having an increased diameter with respect to the first end of the shaft 123 as seen in fig. 12, a key insertion end opposite the shaft insertion end of the lock head 122, a locking mechanism 130 to engage the shaft within the lock head 122, a compressible (column 6, line 19) protective covering 134 on the shaft insertion end of the lock head and including a hole to receive the first end of the

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shaft, wherein the protective covering 134 has the same diameter as the cylindrical outer peripheral surface of the lock head. With respect to claim 21, Wilson also teaches a shaft protective cover 24 over the shaft 121 between the lock head 122 and the second end 26 or 125, 126 of the shaft. The covering 134 of Wilson acts as a seal, at least to some degree. Wilson does not teach the covering 134 being mounted so as to partially enclose an axial length of the lock head. As seen in fig. 5, Li teaches a covering member 231 as being mounted to partially enclose an axial length (222) of the lock head 22. In column 10, lines 53-54, Signorelli teaches a washer 49 formed of an elastomeric material. It would have been obvious to mount the covering 134 of Wilson to enclose an axial length of the lock head, in view of the teaching of Li, the motivation being to optimize the strength of its connection to the lock head. It would have been obvious to modify the compressible covering of Wilson such that it is formed of elastomeric material, in view of the teaching of Signorelli et al, the motivation being to optimize its sealing capabilities.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Signorelli et al as applied to claim 17 above, and further in view of Li (000).

As seen in fig. 6, Li teaches a protective cap 252 at the key insertion end of the lock head 21. It would have been obvious to mount a protective cap over the key insertion end of the lock head of Wilson et al, in view of the teaching of Li (000), the motivation being to seal the key slot of the lock head against dust or water, as is well known in the lock art.



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Claims 24 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al in view of Li and Signorelli et al as applied to claim 17 above, and further in view of Wyers (832).

Wyers teaches a seal 66 at the shaft insertion end of the lock head. It would have been obvious to modify the covering 134 of Wilson et al as modified by Signorelli et al, such that it functions as a seal, in view of the teaching of Wyers, the motivation being to protect the interior components of the lock head against dust and water, as is well known.

Applicant's arguments filed February 16, 2007 have been fully considered but they are not persuasive. In response to applicant's Remarks on page 8, line 14, it is not clear what "weather resistant" limitations in the claims are being referred to. It is also noted that the foam material of Wilson clearly forms a seal, at least to some degree. It is also noted that the Wyers reference was also used in modifying Wilson, with respect to the seal limitations, and Wyers was not addressed in the Remarks.

The Remarks on page 9, lines 2-3 are not clear as to what claimed limitations are being argued. With respect to the Remarks on page 9, lines 8-9, it is noted that the Signorelli reference was also applied against the claims, and not addressed in the Remarks.

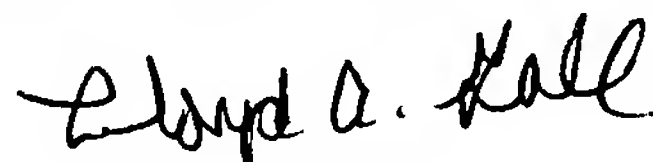
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should also note that Murphy (2,904,985) teaches a seal as set forth in column 2, lines 37-45. Buehner (1,849,070) teaches a weather resistant seal 45, as set forth in column 3, lines 36-39.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lloyd A. Gall whose telephone number is 571-272-7056. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lloyd A. Gall  
Primary Examiner  
Art Unit 3676

LG LG  
May 11, 2007